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ADDITIONS TO SPHEGOIDEA (HYMENOPTERA).

BY HENRY L. VIERECK.

NYSSONIDÆ.

Nysson submellipes n. sp.

Near to *mellipes*, differing chiefly in the curved unevenly spaced ridges on the metathorax and by the salient ridge bounding the superior border of the posterior face of the rather distinctly truncate metathorax.

♂. 8 mm. long. *Head*.—Front protuberant, with rather shallow adjoining punctures and no raised line; ocelli as if set in around a node, distance between posterior ocelli a little less than that between them and nearest eye margin; cheek unmarginated, with separated punctures; clypeus convex, smooth, indistinctly punctured and covered with dense appressed silvery pubescence; face along the eye margin up to the emargination and between the antennæ pubescent like the clypeus, a blunt projection between the antennæ; scape nearly oblong, a little shorter than the next three joints of the antenna together; pedicellum a little longer than the first joint of the flagellum; joints of the flagellum subequal, terminal joint obtuse at tip, penultimate joint simple.

Thorax.—Dorsulum punctured much like the front; scutellum more coarsely punctured than the dorsulum; punctures on mesopleura not so deep as on the dorsulum; spines of the metathorax short and stout, directed upward and outward; superior face of the metathorax, in the middle, with regular, strong ridges, posterior face of the metathorax with fine, dull, reticulate, longitudinal areas surmounted by a rather shining, uneven, transverse area which separates the superior from the posterior face; legs smooth, posterior tibiæ not spinose; wings dark brownish with purple reflections, nervures black; transverse median nervure terminating a little beyond the basal nervure, third transverse cubitus joining the marginal cell where the petiole of the second submarginal cell joins the marginal cell, second submarginal cell almost forming an obtuse triangle.

Abdomen.—Punctures on the first abdominal segment rather deep, distinctly defined and close together, the punctures of the succeeding segments smaller but denser; integument dull, sericeous; the two teeth at apex of abdomen short.

Black; mandibles reddish except at base and apex; legs reddish, infuscated at base; scape partly reddish; pronotum, tubercles, transverse irregular band on the scutellum and bands on segments 1, 2, 3 and 4 of abdomen yellow, the band on the first segment nearly interrupted, on segments 2 and 3 broadly interrupted, on the fourth segment represented by dots; tegulæ partly brownish.

Type locality, Riverton, New Jersey. Type, Acad. Nat. Sci., Phila. August 7, 1901 (C. W. Johnson).

Nysson tramosericus n. sp.

Nearest to *albomarginatus*, from which it differs at once by the

greater distance between the insertion of the anal nervure and the cubitus on the median nervure and by the stronger sculpture of the metathorax, the ridges being strong, and by the shorter metathoracic spines which are blunt.

♂. 6 mm. long. *Head*.—Front not appreciably protuberant, punctured as in *submellipes*; distance between posterior ocelli distinctly less than that between them and nearest eye margin; cheek unmarginated, about as closely punctured as the front; clypeus and face as in *submellipes*; scape rather cylindrical, the proportion between the joints of antenna about as in *submellipes*, terminal joint slightly truncate, penultimate joint not produced.

Thorax.—Dorsulum punctured much like the front; scutellum with the punctures not so deep nor coarser than on the dorsulum; mesopleura punctured much like the dorsulum; metathorax with short, blunt spines directed outward and upward, superior face with rather coarse ridges not widely separated, posterior face sculptured nearly as in *submellipes*. Wings colored much as in *submellipes*, but not quite so dark; transverse median nervure distinctly beyond the basal nervure; third transverse cubitus joining the marginal cell more than the length of the petiole from the insertion of the petiole in the marginal cell; legs as in *submellipes*.

Abdomen.—Punctures on the first abdominal segment rather shallow and indistinctly defined, punctures on the second segment smaller than on the first and third, on the fourth segment the punctures are larger than on the third; segments 5, 6 and 7 with punctures like those on 4, each segment more densely punctured than the other, apical segment almost rugose, spines sharp and slender.

Black; mandibles faintly castaneous, tip of the scape brownish, apex of femora, and the tibiae especially at base and apex reddish to brownish testaceous, the tibiae between basal and apical thirds more or less infuscated; first three segments banded as in *submellipes*, segments 4 and 5 with lateral dots, one on each side; pronotum with a transverse line on the middle occupying one-half its width; tubercles and a spot on the scutellum yellow.

Type locality, Lehigh Gap, Pennsylvania. Type, Acad. Nat. Sci. Phila. June 30, 1901, on *Achillea millefolium* flowers (H. L. Viereck).

Nyssondæcke n. sp.

Allied to *fidelis*, from which it differs at once in the first joint of the flagellum being hardly longer than the second joint.

♂. 5 mm. long. *Head*.—Front not at all protuberant, punctures very fine and adjoining giving a dull granular appearance; ocelli not exactly as if set in around a node; cheek unmarginated, punctured like the front vertex and occiput; clypeus orange, its sculpture hidden by the dense appressed silvery pubescence; scape almond shaped, the outer half reddish orange; pedicellum and flagellum as in *submellipes*, but the terminal joint excavated beneath and truncate at the tip, penultimate joint slightly produced at tip beneath.

Thorax.—Dorsulum punctured like the front; punctures coarser on the scutellum than on the dorsulum; mesopleura dull, reticulated; metathorax with very

short sharp spines directed outward and upward, superior face with nearly straight ridges placed close together, only the central ridges prominent on the posterior face which is reticulated; wings brownish iridescent, nervures black, venation nearly as in *tramosericus*; legs smooth, posterior tibiæ not spinose.

Abdomen.—First three segments with rather sparse, small, shallow punctures on a minutely punctured surface, on the apical segments the minute punctures become prominent and the larger shallow punctures almost disappear; spines of apical segment very short and blunt.

Black; pronotum with a median spot, tubercles, a short line on each side of segments 1, 2 and 3 at apex, and a dot on each side of segment 4 yellowish white, four anterior tibiæ with a whitish line in front.

Type locality, Lucaston, New Jersey. Type, Acad. Nat. Sci. Phila. May 30, 1902 (E. Daecke).

CRABRONIDÆ.

Entomognathus lenapeorum n. sp.

♀. 5 mm. long. *Head*.—Polished, punctures rather sparse and small, a semi-lunar depression between the lateral ocellus and the eye, the frontal impression represented by a shallow pit; joints of the flagellum subequal, pedicellum equal to the first joint of the flagellum or a little longer; ocelli forming a low triangle, distance between posterior pair distinctly greater than the distance between them and the nearest eye margin.

Thorax.—Pronotum smooth and rounded, apparently impunctate; dorsulum with indistinct parapsidal grooves and sparse setigerous punctures; scutellum punctured much like the dorsulum; pleura very finely and sparsely punctured; metathorax with the superior face deeply pitted and with irregular strong rugæ, posterior face rugulose and with a median triangular smooth depression; wings clear, slightly brownish, the nervures and stigma black, transverse median nervure a little basad of interstitial with the basal nervure, the recurrent nervure enters the submarginal cell a little beyond the middle, as does the transverse cubitus enter the marginal cell.

Abdomen.—Largely impunctate, the penultimate dorsal segment densely punctured, the pygidium more densely punctured than the segment preceding; second ventral segment rather sparsely punctured.

Black; scape with a line in front; tubercles and four anterior tibiæ in front yellow, tarsi and spurs brownish. Face below antennæ covered with dense silvery pubescence, the other parts of the insect covered with thin pubescence that does not hide the surface, the pubescence more abundant on the legs than on the body.

Type locality, Lehigh Gap, Pennsylvania. Type, Acad. Nat. Sci., Phila. July 29, 1901.

Anothyreus panurgoides n. sp.

Related to *A. (Crabro) æqualis*, but differs in the more even punctuation of the dorsulum and particularly by the first segment ap-

proaching a triangular outline not parallel sided. The male would seem to be related to group *niditiventris* of Fox, from which it differs at once by the absence of convex enclosures on the superior face of the metathorax.

♂. 7.5 mm. long. *Head*.—Closely, finely, indistinctly punctured, especially on the front; distance between posterior ocelli less than the distance between the lateral ocellus and the eye margin; the distance between the eyes at base of clypeus is greater than the clypeus is high. Clypeus convex, with the surface hidden by dense appressed pubescence, the anterior margin slightly sinuate, not dentate; first joint of flagellum a little shorter than 2 and 3.

Thorax.—Pronotum rounded almost impunctate, the anterior lateral angles feebly bluntly spinose; dorsulum with rather indistinct small setigerous punctures adjoining on the sides, separated in the middle; mesopleura with the punctures a little larger than those on the dorsulum, and sparse episternal sutures strongly foveolate; punctures on the scutellum smaller and sparser than on the dorsulum; postscutellum rough, apparently impunctate; metathorax on the superior face with a median almost hexagonal enclosure, surrounded by strong ridges, broader at base than at the apex, outside of this enclosure the sculpture is irregular reticulate, the ridges far apart the surface between shining, posterior face of the metathorax dull, with a median longitudinal enclosure marked off by weak ridges and about four times as long as wide. Metapleura polished, impunctate, with a short ridge just above the inferior margin; wings brownish, the nervures and stigma dark brown, transverse median nervure distinctly basad of the basal nervure, recurrent nervure entering the submarginal cell distinctly beyond the middle, transverse cubitus entering the marginal cell in the middle.

Abdomen.—First two segments almost impunctate, the remaining segments rather densely punctured with minute, indistinct, setigerous punctures; pygidium coarsely, closely punctured, the apical half covered with appressed bristles.

Black; a large part of the scape, mandibles except base and apex, four anterior legs with tibiae in front and basal joint of tarsi, posterior legs with apical two-thirds of tibiae in front and basal joint of tarsi yellow, tubercles, a short line on each side of the pronotum, a spot on the scutellum, a more or less broadly interrupted band on segments 1, 2, 3 and 4 yellow, spurs, claws and all except basal joint of tarsi brownish.

♂. 6 mm. long. *Head*.—Front, vertex and occiput apparently impunctate, the cheeks with fine setigerous punctures; distance between posterior ocelli greater than the distance between the lateral ocellus and nearest eye margin; clypeus convex, basal half dull rugulose, apical half shining, the sculpture not quite hidden by the dense appressed silvery pubescence; first joint of flagellum about as long as the second.

Thorax.—Pronotum rounded not angulate; dorsulum impunctate except for the very fine setigerous punctures; mesopleura sculptured much like the dorsulum; postscutellum apparently impunctate, polished; metathorax irregularly reticulate, posterior face with the ridges not so sharp and with a median V-shaped polished enclosure; metapleura irregularly striate; wings brownish, the nervures and stigma black.

Abdomen.—Dorsally with very minute setigerous punctures; penultimate seg-

ment densely, coarsely punctured, apical segment more coarsely and not so densely punctured as the preceding.

Black; scape, clypeus in the middle of the anterior half, mandibles at base, tubercles, four anterior femora in front, four posterior legs with tibiae and basal joint of tarsi and a spot on each side of the first four abdominal segments yellow, anterior tibiae, and the tarsi otherwise brownish testaceous.

Type locality, Lehigh Gap, Pennsylvania. Type, Acad. Nat. Sci. Philadelphia- June 25, 26, 1901.

***Paranothyreus rugicollis* n. sp.**

Nearest to *snowi*, but distinguished by rugose pronotum and the shining quadrate pits of the metanotum.

♂. 7.5 mm. long. *Head*.—Front impressed, sparsely punctured, the punctures small and setigerous, space between and just back of posterior ocelli coarsely punctured, cheeks rather densely finely punctured; distance between posterior ocelli greater than the distance between the lateral ocellus and the eye margin; distance between the eyes at base of clypeus less than the clypeus is high; clypeus yellow, the sculpture hidden by the dense, appressed, silvery pubescence; first joint of antenna distinctly longer than the second, but shorter than the second and third together.

Thorax.—Pronotum rugose, the anterior lateral angles strongly produced; dorsulum with dense, small, setigerous punctures distinctly separated in the middle, nearly adjoining on the sides; mesopleura with the punctures much finer and sparser than on the dorsulum; scutellum with the punctures larger and sparser than on the dorsulum; postscutellum roughened, apparently impunctate; superior face of metathorax with a medial row of quadrate pits, outside of this the surface is irregularly reticulate, posterior face with a median cuneate sulcus bounded on each side by a series of quadrate pits; metapleura smooth, almost polished; wings clear, slightly brownish, nervures and stigma dark brown, transverse median nervure distinctly basad of the basal nervure, recurrent nervure received by the submarginal cell a little before the middle.

Abdomen.—Covered with microscopic, indistinctly defined, setigerous punctures, the penultimate and apical segments rather distinctly punctured.

Black; scape except posterior face, mandibles except the apex, tubercles, anterior femora except a broad line posteriorly, middle femora beneath and on the apical half of the superior face, four anterior tibiae except a spot beneath at apex, posterior tibiae in front, basal joint of tarsi, the trochanters wholly or in part and segments 1, 2, 3, 4 and 5 with a more or less broadly interrupted band yellow, tegulae, claws, and the tarsi except basal joint more or less brownish, the tarsi somewhat fuscous.

Type locality, Riverton, New Jersey. Type, Acad. Nat. Sci. Phila. July 8, 1901 (C. W. Johnson).

***Stenocrabro nelli* n. sp.**

Related to *sulcus*, but differs in the opaque almost impunctate

integument. Can be recognized at once by the median tarsi being all yellow.

♀. *Head* and thorax together 3 mm. long. Head dullish, with a few scattered punctures, cheeks finely densely punctured; distance between posterior ocelli less than than the distance between them and nearest eye margin; distance between the eyes at base of clypeus about equal to the height of the clypeus; clypeus nearly flat, the surface hidden by dense, appressed, silvery pubescence; first joint of the flagellum a little shorter than the second, joints of the flagellum subequal.

Thorax.—Pronotum dull, smooth and rounded; dorsulum dull, apparently impunctate; mesopleura dull, with sparse minute punctures; scutellum dull, apparently densely, very finely punctured; postscutellum dull, finely roughened, apparently impunctate; superior face of metathorax divided into two nearly triangular spaces by a medial foveate line and separated from the adjacent areas of the metathorax by foveate lines, posterior face dull, with a median cuneate space, rugulose at base, smooth at apex; metapleura dull, impunctate: wings clear tinged with brown, nervures and stigma very dark brown, transverse median nervure distinctly basad of the basal nervure, recurrent nervure entering the submarginal cell in the middle or nearly, transverse cubitus entering the marginal cell distinctly basad of the middle.

Abdomen lost.

Black; scape in front, four anterior tibiae except a line on the posterior face and base of posterior tibiae yellow, tarsi of four anterior legs whitish, apical joints and claws brownish, mandibles and posterior tibiae partly castaneous.

Type locality, Philadelphia (Frankford), Pennsylvania. Type, Acad. Nat. Sci. Phila. June 23, 1898 (P. Nell).

***Stenocrabro flavitrochantericus* n. sp.**

♀. 5 mm. long. *Head*.—Dull, with fine, dense, indistinct punctures; distance between posterior ocelli distinctly less than the distance between the lateral ocellus and the nearest eye margin; clypeus yellow, rather elevated in the middle, surface hidden by dense appressed silvery pubescence.

Thorax.—Pronotum dull, with a transverse channel; dorsulum dull, densely, finely punctured; mesopleura rather shining, closely, finely punctured; scutellum sculptured much like the dorsulum; superior face of the metathorax divided into two nearly triangular spaces by a medial cuneate space, the base of which is at the base of the metathorax and the apex adjoining the foveate line separating the superior from the posterior face, posterior face shining, with a deep median sulcus; metapleura polished, impunctate; wings clear tinged with brownish, nervures and stigma nearly black; transverse median nervure distinctly basad of the basal nervure, the recurrent nervure entering the submarginal cell basad of the middle, transverse cubitus distinctly basad of the middle of the marginal cell.

Abdomen shining, minutely punctured, penultimate segment with dense not sharply defined punctures, pygidium with coarse punctures.

Black; scape except a black line on the posterior face, mandibles except at apex, tubercles, line on pronotum, spot on the scutellum, trochanters, four an-

terior tibiæ except on the posterior face, base of posterior tibiæ yellow, tarsi except the brownish apical joints whitish, apex of mandibles brown.

Type locality, Riverton, New Jersey. Type, Acad. Nat. Sci. Phila. June 6 (C. W. Johnson).

Diodontus crassicornus n. sp.

Related to *rugosus*. The antennæ are thicker than in any other North American species of this genus.

♂. 4 mm. long. General form compact. *Head*.—Very finely sculptured and with numerous indistinct punctures rather close together, sculpture of the lower half of the face hidden by appressed silvery pubescence; cheeks broad and gently rounded; ocelli forming a low triangle, the distance between the posterior ocelli a little greater than the distance between the lateral ocellus and the nearest eye margin; antennæ dull sericeous, joints of the flagellum subequal, terminal joint longest, nearly as long as the first two joints together, all except the terminal joint nearly as thick as long, flagellum somewhat serrated on the under side; labrum deeply broadly emarginate.

Thorax.—Pronotum roughened, rather angular; dorsulum rather densely punctured, with punctures like on the front; scutellum sculptured like the dorsulum; pleura rugulose, the metapleura rather striated; metathorax irregularly reticulate, with an indistinct pit in the middle of the superior half of the posterior face, no distinctly toothed lateral margin; legs smooth, the posterior tibiæ with strong bristles on the posterior margin; wings clear, slightly smoky, nervures and stigma dark brown, the latter nearly black, transverse median nervure nearly interstitial with the basal nervure, first recurrent nervure joining the first submarginal cell about one-third its length on the cubitus from the first transverse cubitus, second recurrent nervure joining the second submarginal cell in the middle; the second submarginal cell about three times as broad on the cubitus as on the radius.

Abdomen very minutely punctured and dullish, the sutures rather constricted.

Black; mandibles except at apex yellow; legs largely brownish ochreous, middle and posterior femora black except at tips; about one-half of the anterior femora colored like the tibiæ.

Thinly indistinctly sericeous, the apical abdominal segments rather distinctly sericeous.

Type locality, Corvallis, Oregon. Type, Acad. Nat. Sci. Phila. July 7, 1896 (A. B. Cordley).

Passalaceus rivertonensis n. sp.

Allied to *annulatus*, but differs in having the parapsidal furrows faint, not foveolate; length of the cubitus between the first recurrent nervure and the first transverse cubitus less than half the length of the first transverse cubitus.

♂. 5 mm. long. *Head*.—Front finely granular; vertex with fine separated punctures on a shining surface; frontal impression not distinct; ocelli situated

in indistinct pits, distance between the posterior ocelli less than the distance between the lateral ocellus and nearest eye margin; antennal joints subequal, second joint longer than the first, third longer than the fourth, terminal joint longest, pointed at the tip.

Thorax.—Dorsulum dull, closely finely punctured, with rather indistinct parapsidal grooves; scutellum and postscutellum shining, not so distinctly punctured as the dorsulum; metathorax irregularly reticulate, smooth and shining between the raised lines, metapleura dull and granular.

Abdomen.—Shining finely punctured. Covered with thin pubescence, face and mesopleura more densely pubescent than the rest of the body, the clypeus especially densely covered with appressed silvery pubescence.

Black; antennæ with yellow rings at the apex of the segments, scape in front and mandibles yellow, palpi and tubercles whitish, tegulæ brown, nervures and stigma black or nearly.

Type locality, Riverton, New Jersey. Type, Acad. Nat. Sci. Phila. June 17th (C. W. Johnson).